

### Claims

1. A method for determining a vehicle (1) speed, e.g. for an automatic gear shifting system, comprising the steps of:

- 5 - determining if at least one driven wheel (6) is spinning or shows a tendency to spin and/or if the vehicle (1) is braked under influence of an antilock braking system, and  
- determining the vehicle speed based on a rate of rotation of at least one non-driven wheel (10), a value of the vehicle speed received from a positioning system and/or a value of the vehicle speed received from a vehicle radar system (18), if either the at  
10 least one driven wheel (6) is spinning or shows a tendency to spin or the vehicle (1) is braked under influence of the antilock braking system.

2. A method according to claim 1, comprising the step of:

- calculating the vehicle speed based on an engine speed, a propeller shaft speed and/or  
15 a crank shaft speed, if the at least one driven wheel (6) is not spinning or shows a tendency to spin or the vehicle (1) is not braked under the influence of the antilock braking system.

3. A vehicle (1) comprising

- 20 an automatic gear shifting system,  
a system for determining if at least one driven wheel (6) is spinning or shows a tendency to spin and/or an antilock braking system, and  
**characterised by**  
calculation means (23) for calculating a vehicle speed based on a rate of rotation of at  
25 least one non-driven wheel (10), a positioning system unit (17) and/or a vehicle radar system, and  
determining means (22) for determining the vehicle speed based on a rate of rotation of at least one non-driven wheel (10), a value of the vehicle speed received from the positioning system unit (17) and/or a value of the vehicle speed received from the  
30 vehicle radar system (18), if either the at least one driven wheel (6) is spinning or

shows a tendency to spin or the vehicle (1) is braked under influence of the antilock braking system.

4. A vehicle (1) according to claim 3, comprising

calculating means for calculating the vehicle speed based on an engine speed, a propeller shaft speed and/or a crank shaft speed, if the at least one driven wheel (6) is not spinning or shows a tendency to spin or the vehicle (1) is not braked under the influence of the antilock braking system.

5. A computer program for determining a vehicle speed, e.g. for automatic gear shift control, comprising computer readable code means, which when run on an electronic control unit in a vehicle (1) causes the electronic control unit to

- determine if at least one driven wheel (6) is spinning or shows a tendency to spin and/or if the vehicle (1) is braked under influence of an antilock braking system, and

- determine the vehicle speed based on a rate of rotation of at least one non-driven wheel (10), a value of the vehicle speed received from a positioning system and/or a value of the vehicle speed received from a vehicle radar system (18), if either the at least one driven wheel (6) is spinning or shows a tendency to spin or the vehicle (1) is braked under influence of the antilock braking system.

6. A computer program product comprising a computer readable medium and a computer program according to claim 5 stored on the computer readable medium.

7. An electronic control unit adapted for connection to a vehicle internal network bus (14) in a vehicle (1), comprising a storing means (21) and a computer program according to claim 5 stored on the storing means (21).

8. An electronic control unit according to claim 7, wherein the electronic control unit is a gearbox electronic control unit (12).